IN THE CLAIMS:

Listing of the claims:

1.   (Currently amended) A method of data compression for colour images ~~characterised in that~~ wherein it incorporates the following steps:

a)   establishing a value for a number of scales into which a wavelet transformation is to be made;

b)   distinguishing areas in an original colour image of relatively higher importance from those of relatively lower importance;

c)   transforming the colour image into a second image in a different colour system having relatively more image information in a first component and relatively less in other components;

d)   sub-sampling the other components to reduce their respective numbers of pixels;

e)   transforming the first component and the sub-sampled components into wavelet coefficients with the said number of scales;

f)   transforming the importance-distinguished areas to correspond to location and number of scales of the wavelet transformation; and

g)   establishing a wavelet coefficient threshold and forming a reduced wavelet image by discarding wavelet coefficients which both correspond to image areas of relatively lower importance and are below the said threshold.

2.   (Currently amended) A method according to Claim 1 ~~characterised in that it includes~~ including the step of producing a reconstituted colour image, this step comprising forming an encoded image by hierarchically encoding the reduced wavelet image, transmitting the encoded image to another location, and implementing respective inverses of the steps of encoding, wavelet transformation, sub-sampling and colour image transformation.

3.   (Currently amended) A method according to Claim 2 ~~characterised in that the~~ wherein the step of forming an encoded image comprises forming a progressive bitstream in which more important image features are encoded earlier, and which includes information on number image rows and columns, number of scales and filter type.

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4.   (Currently amended) A method according to Claim 1 ~~characterised in that~~ <u>wherein</u> the step of distinguishing areas in an original colour image of relatively higher importance from those of relatively lower importance comprises associating differing binary digits therewith.

5.   (Currently amended) A method according to Claim 1 ~~characterised in that~~ <u>wherein</u>:
   a)   the step of distinguishing areas of relatively higher importance from those of relatively lower importance comprises specifying a plurality of different levels of relatively lower importance, and
   b)   the step of establishing a wavelet coefficient threshold and forming a reduced wavelet image includes discarding progressively more wavelet coefficients as area importance level diminishes.

6.   (Currently amended) A method according to Claim 1 ~~characterised in that~~ <u>wherein</u> the step of transforming the colour image into a second image comprises transformation into luminance, blue chrominance and red chrominance.

7.   (Original) A method according to Claim 1 wherein the step of sub-sampling reduces pixel number to one quarter that preceding.

8.   (Currently amended) A method according to Claim 1 ~~characterised in that~~ <u>wherein</u> the step of wavelet transformation employs a Daubechies-4 filter.

9.   (Currently amended) A method according to Claim 1 ~~characterised in that~~ <u>wherein</u> the number of scales is in the range three to six.

10.   (Currently amended) A method according to Claim 1 ~~characterised in that~~ <u>wherein</u> the step of establishing a wavelet coefficient threshold comprises forming a cumulative histogram of numbers of pixels not exceeding respective wavelet coefficient values.

11.   (Currently amended) A computer program for use in data compression of colour images ~~characterised in that it has~~ <u>and having</u> instructions for ~~implementing~~ <u>controlling computer apparatus to implement</u> the following steps:

a) receiving a value for a number of scales into which a wavelet transformation is to be made;

b) receiving an indication of areas in an original colour image having relatively higher importance and those of relatively lower importance;

c) transforming the colour image into a second image in a different colour system having relatively more image information in a first component and relatively less in other components;

d) sub-sampling the other components to reduce their respective numbers of pixels;

e) transforming the first component and the sub-sampled components into wavelet coefficients with the said number of scales;

f) transforming the importance-distinguished areas to correspond to location and number of scales of the wavelet transformation; and

g) establishing a wavelet coefficient threshold and forming a reduced wavelet image by discarding wavelet coefficients which both correspond to image areas of relatively lower importance and are below the said threshold.

12. (Currently amended) A computer program according to Claim 11 ~~characterised in that it has~~ having instructions for ~~implementing~~ controlling computer apparatus to implement production of a reconstituted colour image by forming an encoded image by hierarchically encoding the reduced wavelet image, transmitting the encoded image to another location, and implementing respective inverses of the steps of encoding, wavelet transformation, sub-sampling and colour image transformation.

13. (Currently amended) A computer program according to Claim 11 ~~characterised in that it has~~ having instructions for controlling computer apparatus to implement ~~implementing~~ formation of an encoded image by forming a progressive bitstream in which more important image features are encoded earlier, and which includes information on number image rows and columns, number of scales and filter type.

14. (Currently amended) A computer program according to Claim 11 ~~characterised in that it has instructions for distinguishing~~ having instructions for controlling computer apparatus to distinguish areas in an original colour image of relatively higher importance from those of relatively lower importance by associating differing binary digits therewith.

15. (Currently amended) A computer program according to Claim 11 ~~characterised in that it has instructions for~~ ~~implementing~~ having instructions for controlling computer apparatus to implement transformation of the colour image into a second image by implementing a transformation into luminance, blue chrominance and red chrominance.

16. (Currently amended) A computer program according to Claim 11 ~~characterised in that it has instructions for~~ having instructions for controlling computer apparatus to:
   a) distinguish ~~distinguishing~~ areas of relatively higher importance from those of relatively lower importance by specifying a plurality of different levels of relatively lower importance, and
   b) establish ~~establishing~~ a wavelet coefficient threshold and forming a reduced wavelet image by discarding progressively more wavelet coefficients as area importance level diminishes.

17. (Currently amended) A computer program according to Claim 11 ~~characterised in that it is arranged to~~ having instructions for controlling computer apparatus to sub-sample by reducing pixel number to one quarter that preceding.

18. (Currently amended) A computer program according to Claim 11 ~~characterised in that it is arranged to~~ having instructions for controlling computer apparatus to implement wavelet transformation with a Daubechies-4 filter.

19. (Currently amended) A computer program according to Claim 11 ~~characterised in that~~ wherein the number of scales is in the range three to six.

20. (Currently amended) A computer program according to Claim 11 ~~characterised in that it is arranged~~ having instructions for controlling computer apparatus to establish a wavelet coefficient threshold by forming a cumulative histogram of numbers of pixels not exceeding respective wavelet coefficient values.

21. (Currently amended) Computer apparatus for use in data compression of colour images ~~characterised in that it is arranged to run the computer program of any one of claims 11 to 20~~ and programmed to implement the following steps:

a)   receiving a value for a number of scales into which a wavelet transformation is to be made;

b)   receiving an indication of areas in an original colour image having relatively higher importance and those of relatively lower importance;

c)   transforming the colour image into a second image in a different colour system having relatively more image information in a first component and relatively less in other components;

d)   sub-sampling the other components to reduce their respective numbers of pixels;

e)   transforming the first component and the sub-sampled components into wavelet coefficients with the said number of scales;

f)   transforming the importance-distinguished areas to correspond to location and number of scales of the wavelet transformation; and

g)   establishing a wavelet coefficient threshold and forming a reduced wavelet image by discarding wavelet coefficients which both correspond to image areas of relatively lower importance and are below the said threshold.

22.   (New)   Computer apparatus according to Claim 21 programmed to implement production of a reconstituted colour image by forming an encoded image by hierarchically encoding the reduced wavelet image, transmitting the encoded image to another location, and implementing respective inverses of the steps of encoding, wavelet transformation, sub-sampling and colour image transformation.

23.   (New) Computer apparatus according to Claim 21 programmed to form an encoded image by forming a progressive bitstream in which more important image features are encoded earlier, and which includes information on number image rows and columns, number of scales and filter type.

24.   (New) Computer apparatus according to Claim 21 programmed to distinguish areas in an original colour image of relatively higher importance from those of relatively lower importance by associating differing binary digits therewith.

25.   (New) Computer apparatus according to Claim 21 programmed to transform the colour image into a second image by implementing a transformation into luminance, blue chrominance and red chrominance.

26.   (New) Computer apparatus according to Claim 21 programmed to:

a)   distinguish areas of relatively higher importance from those of relatively lower importance by specifying a plurality of different levels of relatively lower importance, and

b)   establish a wavelet coefficient threshold and forming a reduced wavelet image by discarding progressively more wavelet coefficients as area importance level diminishes.

27.   (New) Computer apparatus according to Claim 21 programmed to sub-sample by reducing pixel number to one quarter that preceding.

28.   (New) Computer apparatus according to Claim 21 programmed to implement wavelet transformation with a Daubechies-4 filter.

29.   (New) Computer apparatus according to Claim 21 wherein the number of scales is in the range three to six.

30.   (New) Computer apparatus according to Claim 21 programmed to establish a wavelet coefficient threshold by forming a cumulative histogram of numbers of pixels not exceeding respective wavelet coefficient values.